

DIGITAL TWINS AID DIGITAL GOVERNMENT

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VISIT...

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Digital twins can provide a safe virtual environment where users can simulate and test the impact of changes to assets, products, systems and processes based on real time data.

Digital twins can also be used to proactively identify problems or emerging problems, and enable early intervention
(see [Sydney Water 2019](#)).

In some cases, the digital twin can be used to control its real-world counterpart.

Digital.NSW Emerging Technology Guide



By 2020, Gartner estimates there will be more than 20 billion connected sensors and endpoints and digital twins will exist for potentially billions of things.

Organisations will implement digital twins simply at first.

They will evolve them over time, improving their ability to collect and visualise the right data, apply the right analytics and rules, and respond effectively to business objectives.

Top Ten Gartner Technology Trend 2019

Gartner

A Digital Twin is a digital model of a real-life object, process or system.

The digital model can be informed by historical data and fed with live sensor data to make the digital model identical – a ‘twin’ – to the real-life subject.





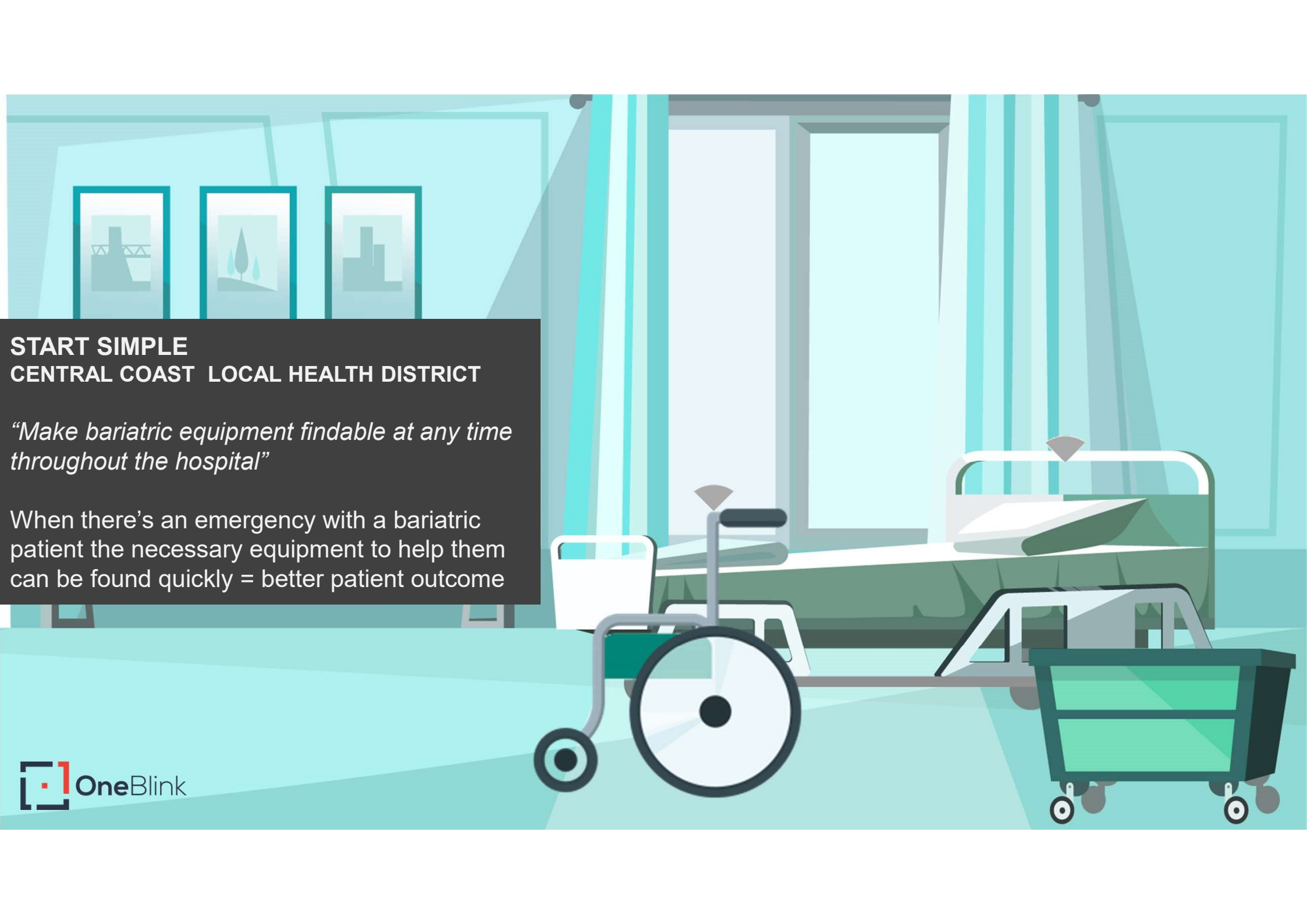


An illustration of a hospital room. In the background, there are three framed pictures on the wall: one of a bridge, one of trees, and one of a bar chart. A large window with light blue curtains is in the center. In the foreground, there is a hospital bed with a green blanket, a white wheelchair, and a green medical cart with two shelves. The floor is light blue.

START SIMPLE
CENTRAL COAST LOCAL HEALTH DISTRICT

“Make bariatric equipment findable at any time throughout the hospital”

Waiting time in admission for Bariatric patients will significantly reduce = better patient outcome

An illustration of a hospital room. In the background, there are three framed pictures on the wall: one of a bridge, one of a landscape with trees, and one of a bar chart. A large window with vertical blinds is in the center. In the foreground, there is a hospital bed with a green blanket, a wheelchair, and a medical cart with a green bin. The room is lit with soft, teal-colored light.

START SIMPLE CENTRAL COAST LOCAL HEALTH DISTRICT

“Make bariatric equipment findable at any time throughout the hospital”

When there’s an emergency with a bariatric patient the necessary equipment to help them can be found quickly = better patient outcome

An illustration of a hospital room. In the background, there are three framed pictures on the wall: one of a bridge, one of trees, and one of a bar chart. A large window with vertical blinds is in the center. In the foreground, there is a hospital bed with a green blanket, a wheelchair, and a green utility cart. The room is lit with soft, teal-colored light.

START SIMPLE CENTRAL COAST LOCAL HEALTH DISTRICT

"Make bariatric equipment findable at any time throughout the hospital"

Huge amounts of PSA and Nurse time saved in searching = major improvement in staff efficiency

An illustration of a hospital room. In the background, there is a hospital bed with a green blanket and a white pillow. To the left of the bed is a white wheelchair with a green seat. In the foreground, there is a green medical cart with two shelves and four wheels. The room has light blue walls with three framed pictures: a bridge, a tree, and a bar chart. A large window with white curtains is on the right. The floor is light blue.

START SIMPLE
CENTRAL COAST LOCAL HEALTH DISTRICT

“Make bariatric equipment findable at any time throughout the hospital”

Can find any equipment quickly = don't need to buy as many wheelchairs, hoists, hovermats etc

Start Simple

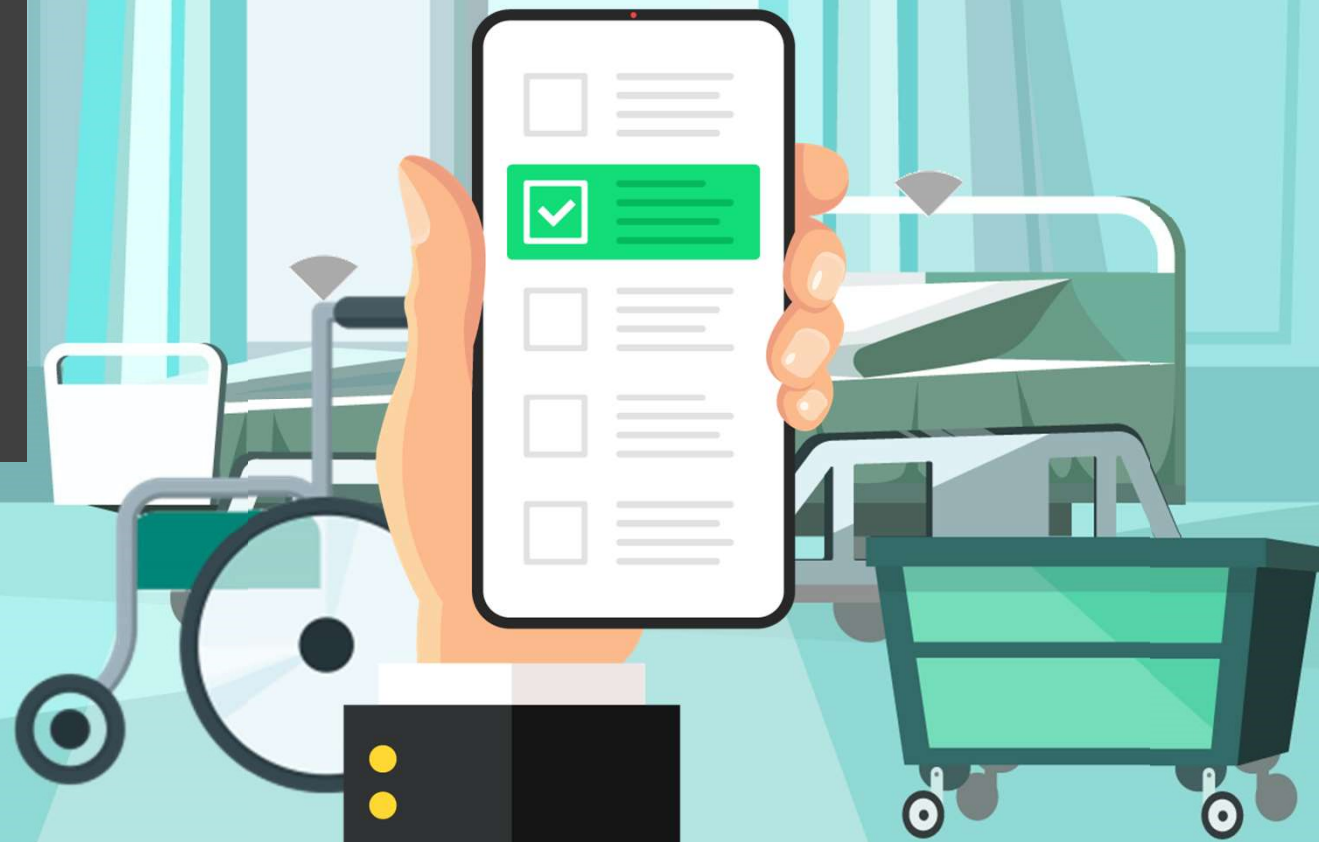
- Better patient outcomes
- Improve staff efficiency
- Buy less equipment



THEN...
EXTEND VERSION 1 WORK

*THROUGH THE USE OF SMART FORMS &
WORKGUIDES*

Improve safety by making usage guides, safe
work methods and key information available at
a touch



**THEN...
EXTEND VERSION 1 WORK**

*THROUGH THE USE OF SMART FORMS &
WORKGUIDES*

Make inspections easy to do with a single touch
pre-loading all available information about asset
and inspector into the right form



Extend V1 Work

- Guarantee right form, right process
- Simplify inspections
- Improve safety



Current Situation

Who's got the {OBJECT}? I'll get someone to check a register

How many {OBJECTS} do we think are in the store? I need to make sure we don't run out

I need a {OBJECT} right now, I'll phone around to find one that's working

Mmm, not quite sure how this is wired

I hate doing inspections - too much typing

We seem to be getting a lot of failures of {OBJECTS} in this area

Damn, I thought we had enough available {OBJECT}, didn't know some were out-of-service

I'm sure we can be more efficient with our equipment

Future Opportunities..."if only you could"

Where are the {OBJECT} right now and who are they with?

Alert me when we have less than 2 {OBJECTS} in the store

Where is the nearest available, operational {OBJECT}?

Show me the wiring diagram or work guide for this controller

I'm doing an inspection, fill in everything you can about the asset and my inspection so I can do it quickly and accurately

When a {OBJECT} starts making a noise over a certain level alert me because we need to service it regardless of whether it's due

We'll guess that this {OBJECT} is out-of-service because it's in area Z of the equipment store and we've learned that when equipment is there it's generally out of service

Now that we can find equipment when we need it, we don't need to over-invest

FOR MORE GOVERNMENT USE CASES

Evidence 'chain of custody'
Gaming machine compliance
Dangerous goods monitoring
In-field assets

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